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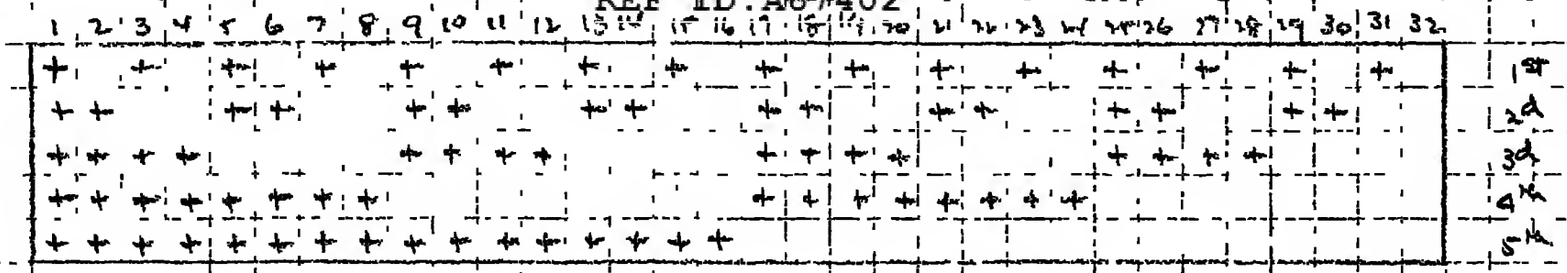
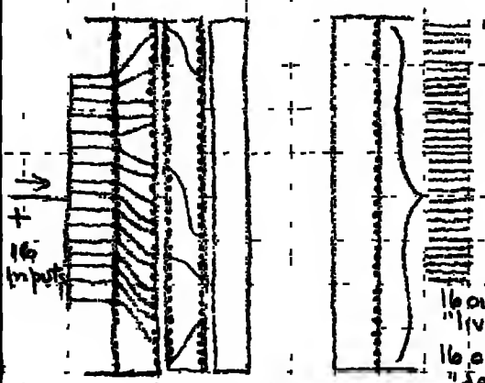
A New Means and Method for Protecting Cryptoteleprinter Transmissions

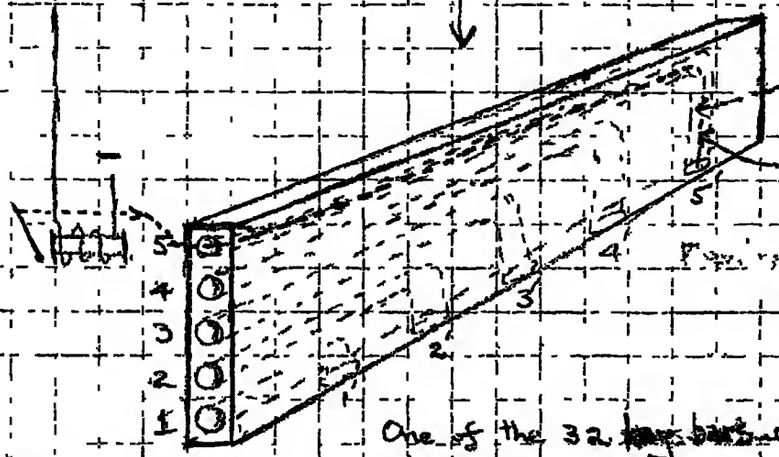
Approved for Release by NSA on 09-10-2013 pursuant to E.O. 13526



Transmitting End



Go to relays or magnets controlling whether or not a "projection" in one of the 5 Baudot levels presents itself under a bar



Tube through which flexible rod or Dowdoin wire pushes out "projection". Magnet at left supplies motive power.

Five successive operations of the rotor system will set up the necessary permutation of + and − "projections" under the bars → and the end result is to set up a monoalphabet for the Baudot equivalents of the 32-character alphabet.

After each series of 5 operations of the rotor system a new monoalphabet is established.

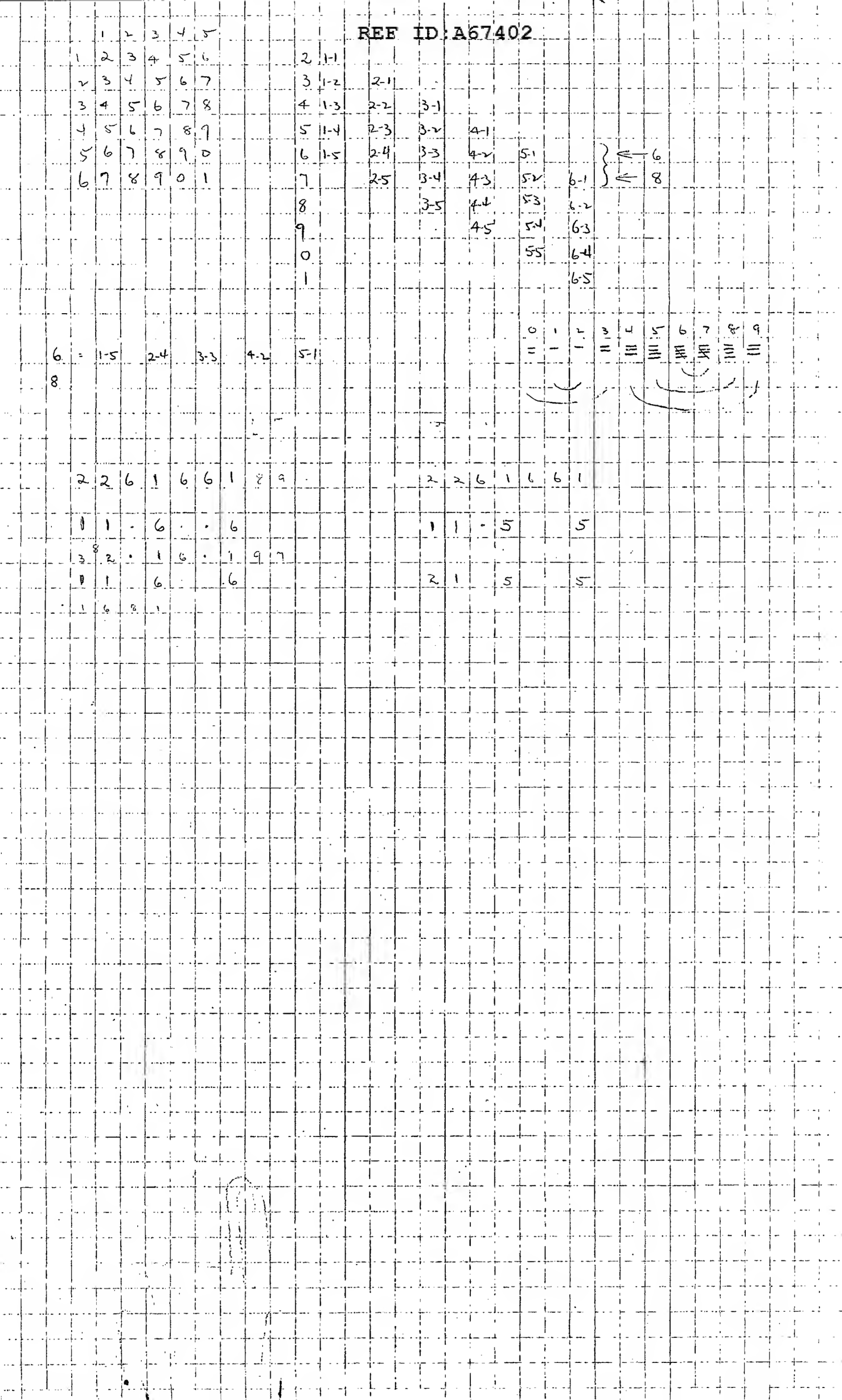
One of the 32 ~~key bars or~~ "projection bars" the keys of keyboard actuate on depression

These bars operate the 5 sliding bars that set up the Baudot permutation representing the letter or character to be "enciphered".

Receiving End

The general arrangements are the same. The rotor system must of course be an exact duplicate of and "in phase" cryptographically with that at the transmitting end. Instead of controlling the "projections" under the key bars the output circuits of the rotor system control the setting up of the slots in the "translator" mechanism to correspond with the monoalphabet established at the moment by the rotor system. If the "translator" mechanism comprises the "slotted-bar" type of arrangement the analogy with the "projection bars" under the keyboard is exact.

Invented 25 Feb 1947 by William F. Friedman

Useful for authentication purposes? Only 1-way line-enciphered but not decipher

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